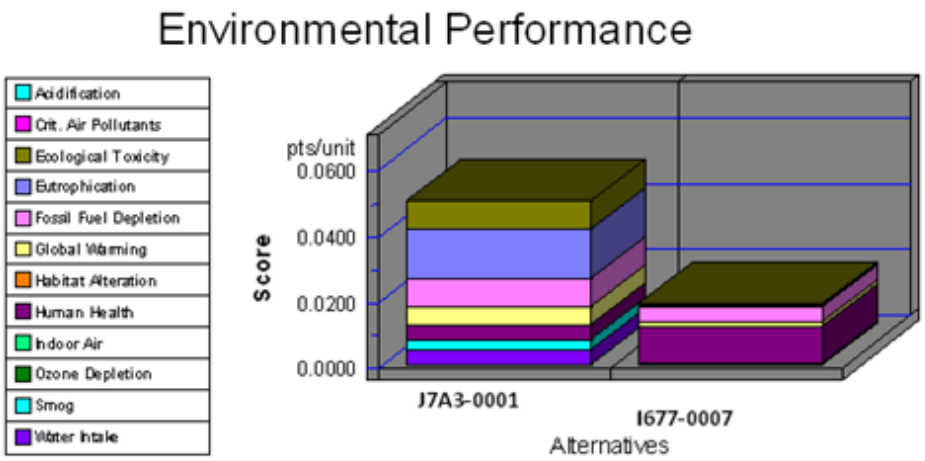
BEES Results: Multi-Purpose Lubricants

Functional Unit: 1 Gallon of Multi-Purpose Lubricant



Note: Lower values are better

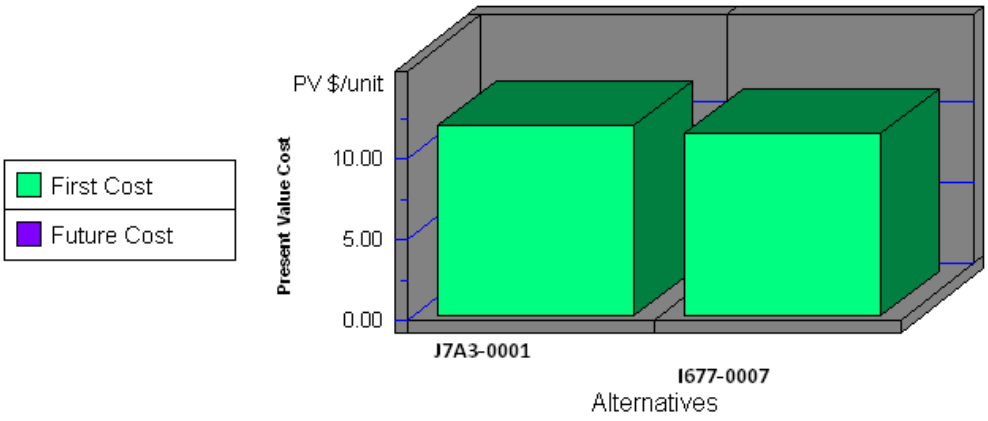
Category	J7A3-0001	I677-0007
Acidification–5%	0.0000	0.0000
Crit. Air Pollutants–6%	0.0002	0.0001
Ecolog. Toxicity–11%	0.0083	0.0006
Eutrophication–5%	0.0152	0.0005
Fossil Fuel Depl.–5%	0.0086	0.0044
Global Warming–16%	0.0055	0.0013
Habitat Alteration–16%	0.0000	0.0000
Human Health–11%	0.0045	0.0112
Indoor Air–11%	0.0000	0.0000
Ozone Depletion–5%	0.0000	0.0000
Smog–6%	0.0031	0.0006
Water Intake–3%	0.0046	0.0001
Sum	0.0500	0.0188

*Sorted by five topmost flows for worst-scoring product

Multi-Purpose Lubricants			
Impacts	Units	J7A3-0001	I677-0007
Acidification	millimoles H^+ equivalents	4.70E+03	8.63E+02
Criteria Air Pollutants	microDALYs	5.33E-01	1.95E-01
Ecological Toxicity	g 2,4-D equivalents	6.13E+01	4.64E+00
Eutrophication	g N equivalents	5.85E+01	1.82E+00
Fossil Fuel Depletion	MJ surplus energy	6.06E+01	3.10E+01
Global Warming	g CO_2 equivalents	8.72E+03	2.11E+03
Habitat Alteration	T&E count	0.00E+00	0.00E+00
Human Health	g C_7H_8 equivalents	6.47E+04	1.62E+05
Indoor Air Quality	g TVOCs	0.00E+00	0.00E+00
Ozone Depletion	g CFC-11 equivalents	2.86E-05	9.55E-06
Smog	g NO_x equivalents	7.82E+01	1.40E+01
Water Intake	liters of water	8.11E+02	2.02E+01
Functional Unit	----------	1 gallon of multi-purpose lubricant	

1 Following are more complete descriptions of units: Acidification: millimoles of hydrogen ion equivalents; Criteria Air Pollutants: micro Disability-Adjusted Life Years; Ecological Toxicity: grams of 2,4-dichlorophenoxy-acetic acid equivalents; Eutrophication: grams of nitrogen equivalents; Fossil Fuel Depletion: megajoules of surplus energy; Global Warming: grams of carbon dioxide equivalents; Habitat Alteration: threatened and engangered species count; Human Health: grams of toluene equivalents; Indoor Air Quality: grams of Total Volatile Organic Compounds; Ozone Depletion: grams of chloroflourocarbon-11 equivalents; Smog: grams of nitrogen oxide equivalents; and Water Intake: liters of water.

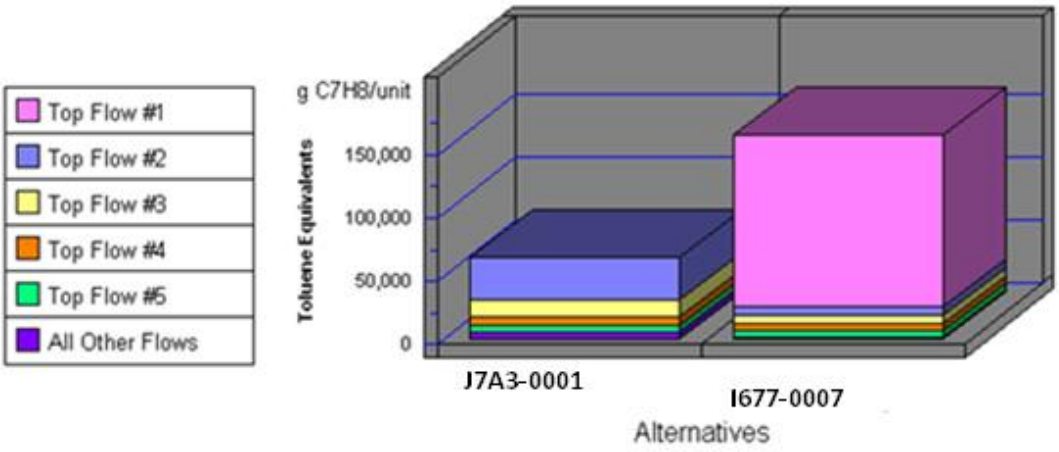
Economic Performance



Category	J7A3-0001	I677-0007
First Cost	11.78	11.25
Future Cost-- 3.9%	0.00	0.00
Sum	11.78	11.25

*No significant/quantifiable durability differences were identified among competing alternatives. Therefore, future costs were not calculated.

Human Health by Sorted Flows*



Note: Lower values are better

Category	J7A3-0001	I677-0007
Cancer--(a) Ethylene Oxide (C2H	0.00	136,292.97
Cancer--(w) Arsenic (As3+, As5+	33,490.85	6,438.38
Cancer--(w) Phenol (C6H5OH)	12,690.06	6,269.63
Cancer--(a) Dioxins (unspecifie	6,598.47	6,086.20
Cancer--(a) Arsenic (As)	6,344.73	4,607.81
All Others	5,621.64	2,340.67
Sum	64,745.74	162,035.66

*Sorted by five topmost flows for worst-scoring product